



Department of Energy
Washington, DC 20585

March 3, 1995

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Compliance File

Mr. William Child, Division Manager
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road, Mail Code 24
Springfield, Illinois 62794-9276

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Dear Mr. Child:

In January 1992, the Department of Energy (DOE) notified your office of past shipments of potentially radioactive waste from facilities managed by the DOE Oak Ridge Operations Office in Oak Ridge, Tennessee, to the Chemical Waste Management (CWM) Chicago Services Incinerator. The purpose of this letter is to provide you with an update based on DOE's continued investigation of past shipments.

Additional review of the manifests and other documentation related to shipments from the Oak Ridge facilities indicates that there was an additional shipment of waste conservatively categorized as likely radioactive waste from the K-25 Plant to the CWM Chicago Services facility in 1985. The waste shipment, summarized in Enclosure 1, was a subset of a shipment sent to a Tennessee transfer facility.

As a result of an audit of laboratory records, it was determined that another DOE site, the Savannah River Site, shipped radioactive waste to the CWM Chicago Services facility and the Trade Waste Incinerator in Sauget, Illinois for incineration. Detailed information on the shipments is provided in the enclosures. Enclosure 2 provides information on the waste amounts, total activity, activity by isotope, and manifest numbers for the shipments to the CWM Chicago Services facility. Enclosure 3 provides similar information for the Sauget facility. Enclosure 4 lists others who have been notified regarding these shipments.

In previous notifications, DOE indicated that it would prepare a dose assessment for the CWM Chicago Services facility. The dose assessment for the CWM Chicago Services facility in Chicago is currently being revised to include the additional waste from the Oak Ridge K-25 Plant and the waste from the Savannah River Site.

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DOE has prepared dose assessment reports for ten treatment, storage, and disposal (TSD) facilities that received known or likely-contaminated wastes. The reported results indicate that potential doses to the workers and the public from managing the DOE waste were 1,000 to 1,000,000,000 times smaller than the average annual dose from background radiation in the United States. These dose assessments provide a virtual certainty that no health or environmental problems were created by the treatment and disposal of these wastes at the TSD facilities. Based on the small inventory of radionuclides sent to the Sauget facility compared to those analyzed in the dose assessments and considering the low doses calculated in the reports, DOE feels that a dose assessment for the Sauget facility is not necessary.

DOE is preparing a report that summarizes the dose assessments that have been conducted for the other TSD facilities. The report will also include an analysis of the remaining facilities which received the smallest amounts of radioactive material in shipments from DOE sites. This analysis will include the Sauget facility. As this report is developed, DOE will work with regulators and with the TSD facilities to verify that the shipment, storage, treatment, and disposal of these wastes has not entailed any health or environmental threat.

If you have any questions, please contact Lee Stevens of my staff at (301) 903-7133.

Sincerely,



Jill E. Lytle
Deputy Assistant Secretary
for Waste Management
Environmental Management

4 Enclosures

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ENCLOSURE 1

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OFFSITE HAZARDOUS WASTE SHIPMENTS
SITE SUMMARY
BY FINAL TREATMENT/STORAGE/DISPOSAL FACILITY

Final TSD Facility Name: Chemical Waste Management
Type of Service: Lfill/Incin/Brokr
Location: Chicago, IL
EPA ID Number: ILD000672121
DOE Site: ORO K-25

	CLEAN	LIKELY RADIOACTIVE		KNOWN RADIOACTIVE		TOTAL	
	Mass (kg)	Mass (kg)	Est. Activity (mCi)	Mass (kg)	Est. Activity (mCi)	Mass (kg)	Est. Activity (mCi)
1985	0.00	340	0.013	0.00	0.00	340	0.013
Total	0.00	340	0.013	0.00	0.00	340	0.013

OFFSITE HAZARDOUS WASTE SHIPMENT
ACTIVITY SUMMARY
BY FINAL TREAT/STORAGE/DISPCAL FACILITY

Final TSD Facility Name: Chemical Waste Management
Type of Service: Lfill/Incin/Brokr
Location: Chicago, IL
EPA ID Number: ILD000672121
DOE Site: ORO K-25

Estimated U234 (mCi)	Estimated U235 (mCi)	Estimated U238 (mCi)	Estimated Tc99 (mCi)	Estimated Total (mCi)
0.001	<0.001	<0.001	0.012	0.013

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Definitions and Abbreviations

Blend Brokr	Blending Broker
Clean	Waste generated and stored outside an area with the potential for radioactive contamination or activation (Radioactive Materials Management Area (RMMA)); or waste generated/stored within an RMMA that has not been radioactively contaminated.
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
Fsubs	Fuel substitution
Incin	Incineration
Injec	Deep Well Injection
K25	K-25 Plant, Oak Ridge, TN
kg	kilograms
Known Radioactive	Wastes generated/stored in an area with the potential for radioactive contamination or activation (Radioactive Materials Management Area (RMMA)) that contains radioactivity added by DOE operations as shown by documentation of radiation surveys and/or sampling and analysis.
Ldfill	Landfill
Likely Radioactive	Waste similar to radioactive waste in form or area/process of origin but, has <u>no</u> retrievable documentation supporting a determination of radioactive contamination.
mCi	millicurie - 0.001 Curies where a Curie is a measurement of radioactivity equivalent to 3.7×10^{10} disintegrations per second.
Neutr	Neutralization
ORO	Oak Ridge Operations Office
Pyrol	Pyrolysis
Recov	Recovery
Rmetl	Recovery of metals or inorganics
Redox	Reduction oxidation
Stabl	Stabilization
TSD	Treatment/Storage/Disposal

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ENCLOSURE 2

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OFFSITE HAZARDOUS WASTE SHIPMENTS
YEARLY SUMMARY BY FINAL TREATMENT/STORAGE/DISPOSAL FACILITY

02/13/95

TSD Facility Name: CHEMICAL WASTE MANAGEMENT
Type of Service: LFILL/INCIN/BROKR
Location: CHICAGO, IL
EPA ID Number: ILD000672121

DOE Site: SRO SRS

Final TSD: ILD000672121 CHEMICAL WASTE MANAGEMENT, CHICAGO, IL
DOE Site: SRO SRS

	CLEAN			LIKELY RADIOACTIVE			KNOWN RADIOACTIVE			TOTAL		
	Volume	Mass		Volume	Mass	Estimated	Volume	Mass	Activity	Volume	Mass	Estimated
Year	(m3)	(kg)		(m3)	(kg)	Activity	(m3)	(kg)	(mCi)	(m3)	(kg)	(mCi)
1988	-----	43585.06		0.00	0.00	0.000	-----	665.43	0.003	-----	44250.49	0.003
1989	-----	58010.91		-----	400.98	0.998	-----	2596.81	0.866	-----	61008.70	1.863
TOTAL	-----	101595.97		-----	400.98	0.998	-----	3262.24	0.869	-----	105259.19	1.867

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OFFSITE HAZARDOUS WASTE SHIPMENTS
YEARLY ACTIVITY SUMMARY
BY FINAL TREATMENT/STORAGE/DISPOSAL FACILITY

02/13/95

Final TSD Facility Name: CHEMICAL WASTE MANAGEMENT
Type of Service: LFILL/INCIN/BROKR
Location: CHICAGO, IL
EPA ID Number: ILD000672121

DOE Site: SRO SRS

Final TSD: ILD000672121 CHEMICAL WASTE MANAGEMENT; CHICAGO, IL.
DOE Site: SRO SRS

Year	Est. CS137 (mCi)	Est. U232 (mCi)	Est. U234 (mCi)	Est. U235 (mCi)	Est. U236 (mCi)	Est. U238 (mCi)	Est. Total (mCi)
1988	<0.0001	0.0002	0.0026	0.0001	0.0007	<0.0001	0.0035
1989	<0.0001	0.0828	1.3861	0.0345	0.3573	0.0026	1.8633
Total	<0.001	0.083	1.389	0.035	0.358	0.003	1.867

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OFFSITE HAZARDOUS WASTE SHIPMENTS
MANIFEST SUMMARY BY FINAL TREATMENT/STORAGE/DISPOSAL FACILITY

02/13/95

TSD Facility Name: CHEMICAL WASTE MANAGEMENT
Type of Service: LFILL/INCIN/BROKR
Location: CHICAGO, IL
EPA ID Number: ILD000672121

DOE Site: SRO SRS

Calendar Year: 1988

Final TSD: ILD000672121 CHEMICAL WASTE MANAGEMENT; CHICAGO, IL
DOE Site: SRO SRS

Manifest	Ship Date	CLEAN		LIKELY RADIOACTIVE			KNOWN RADIOACTIVE			TOTAL		
		Volume (m3)	Mass (kg)	Volume (m3)	Mass (kg)	Estimated Activity (mCi)	Volume (m3)	Mass (kg)	Activity (mCi)	Volume (m3)	Mass (kg)	Estimated Activity (mCi)
IL2093344	09/27	-----	12655.89	0.00	0.00	0.000	0.00	0.00	0.000	-----	12655.89	0.000
IL2093345	09/28	-----	13527.26	0.00	0.00	0.000	0.00	0.00	0.000	-----	13527.26	0.000
IL2093346	09/28	-----	11755.95	0.00	0.00	0.000	-----	665.43	0.003	-----	12421.38	0.003
IL2093348	09/29	-----	5645.96	0.00	0.00	0.000	0.00	0.00	0.000	-----	5645.96	0.000
TOTAL		-----	43585.06	0.00	0.00	0.000	-----	665.43	0.003	-----	44250.49	0.003

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OFFSITE HAZARDOUS WASTE SHIPMENTS
MANIFEST SUMMARY BY FINAL TREATMENT/STORAGE/DISPOSAL FACILITY

TSD Facility Name: CHEMICAL WASTE MANAGEMENT
Type of Service: LFILL/INCIN/BROKR
Location: CHICAGO, IL
EPA ID Number: ILD000672121

DOE Site: SRO SRS

Calendar Year: 1989

Final TSD: ILD000672121 CHEMICAL WASTE MANAGEMENT; CHICAGO, IL
DOE Site: SRO SRS

Manifest	Ship Date	CLEAN		LIKELY RADIOACTIVE			KNOWN RADIOACTIVE			TOTAL		
		Volume (m3)	Mass (kg)	Volume (m3)	Mass (kg)	Estimated Activity (mCi)	Volume (m3)	Mass (kg)	Activity (mCi)	Volume (m3)	Mass (kg)	Estimated Activity (mCi)
CWMA487415	06/09	-----	4277.45	0.00	0.00	0.000	0.00	0.00	0.000	-----	4277.45	0.000
IL2039154	03/21	-----	13970.88	0.00	0.00	0.000	-----	997.92	0.001	-----	14968.80	0.001
IL2039155	03/28	-----	13031.02	0.00	0.00	0.000	-----	457.22	0.001	-----	13488.24	0.001
IL3133781	06/05	-----	6940.08	-----	400.98	0.998	-----	370.13	0.224	-----	7711.19	1.222
IL3133799	09/01	-----	12748.89	0.00	0.00	0.000	0.00	0.00	0.000	-----	12748.89	0.000
IL4003242	06/12	-----	7042.59	0.00	0.00	0.000	-----	771.54	0.640	-----	7814.13	0.640
TOTAL		-----	58010.91	-----	400.98	0.998	-----	2596.81	0.866	-----	61008.70	1.863

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OFFSITE HAZARDOUS WASTE SHIPMENTS
YEARLY SUMMARY BY FINAL TREATMENT/STORAGE/DISPOSAL FACILITY

02/13/95

TSD Facility Name: CHEMICAL WASTE MANAGEMENT
Type of Service: LPILL/TRTWT/INCIN/BROKR
Location: SAUGET, IL
EPA ID Number: ILD098642424

DOE Site: SRO SRS

Final TSD: ILD098642424 CHEMICAL WASTE MANAGEMENT; SAUGET, IL

DOE Site: SRO SRS

	CLEAN			LIKELY RADIOACTIVE			KNOWN RADIOACTIVE			TOTAL		
	Volume	Mass		Volume	Mass	Estimated	Volume	Mass	Activity	Volume	Mass	Estimated
Year	(m3)	(kg)		(m3)	(kg)	Activity	(m3)	(kg)	(mCi)	(m3)	(kg)	Activity
						(mCi)						(mCi)
1992	-----	9185.40		0.00	0.00	0.000	7.24	-----	0.454	7.24	9185.40	0.454
TOTAL	-----	9185.40		0.00	0.00	0.000	7.24	-----	0.454	7.24	9185.40	0.454

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OFFSITE HAZARDOUS WASTE SHIPMENTS
YEARLY ACTIVITY SUMMARY
BY FINAL TREATMENT/STORAGE/DISPOSAL FACILITY

02/13/95

Final TSD Facility Name: CHEMICAL WASTE MANAGEMENT
Type of Service: LFILL/TRTMT/INCIN/BROKR
Location: SAUGET, IL
EPA ID Number: ILD098642424

DOE Site: SRO SRS

Final TSD: ILD098642424 CHEMICAL WASTE MANAGEMENT; SAUGET, IL
DOE Site: SRO SRS

Year	Est. H3 (mCi)	Est. Total (mCi)
1992	0.4539	0.4539
Total	0.454	0.454

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OFFSITE HAZARDOUS WASTE SHIPMENTS
MANIFEST SUMMARY BY FINAL TREATMENT/STORAGE/DISPOSAL FACILITY

02/13/95

TSD Facility Name: CHEMICAL WASTE MANAGEMENT
Type of Service: LFILL/TRTMT/INCIN/BROKR
Location: SAUGET, IL
EPA ID Number: ILD098642424

DOE Site: SRO SRS

Calendar Year: 1992

Final TSD: ILD098642424 CHEMICAL WASTE MANAGEMENT; SAUGET, IL
DOE Site: SRO SRS

Manifest	Ship Date	CLEAN		LIKELY RADIOACTIVE			KNOWN RADIOACTIVE			TOTAL		
		Volume (m3)	Mass (kg)	Volume (m3)	Mass (kg)	Estimated Activity (mCi)	Volume (m3)	Mass (kg)	Activity (mCi)	Volume (m3)	Mass (kg)	Estimated Activity (mCi)
IL4587398	10/15	-----	9185.40	0.00	0.00	0.000	7.24	-----	0.454	7.24	9185.40	0.454
TOTAL		-----	9185.40	0.00	0.00	0.000	7.24	-----	0.454	7.24	9185.40	0.454

ENCLOSURE 4

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Recipients of Notification Regarding
Chemical Waste Management, Chicago, IL

Congressional Addressees

The Honorable Don Young
Chairman, Committee on Resources
U.S. House of Representatives
Washington, D.C. 20515

cc:

The Honorable George Miller
Ranking Minority Member

The Honorable Ken Calvert
Chairman, Subcommittee on Energy
and Mineral Resources
Committee on Resources
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Washington, D.C. 20515

cc:

The Honorable Neil Abercrombie
Ranking Minority Member

The Honorable Frank Murkowski
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, D.C. 20510

cc:

The Honorable J. Bennett Johnston
Ranking Minority Member

The Honorable Paul Simon
United States Senate
Washington, D.C. 20510

The Honorable Carol Moseley-Braun
United States Senate
Washington, D.C. 20510

The Honorable Bobby Rush
U.S. House of Representatives
Washington, D.C. 20515

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TSD Officials

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cc:

John T. Van Gessel
Chemical Waste Management
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Recipients of Notification Regarding
Trade Waste Incinerator, Sauget, IL

Congressional Addressees

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The Honorable Ken Calvert
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Washington, D.C. 20515

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Ranking Minority Member

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Washington, D.C. 20510

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United States Senate
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The Honorable Jerry F. Costello
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TSD Officials

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cc:

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